

Identification of Achievable Performance Standards
Source Category: Fugitive Emissions of VOCs from Chemical Plants

Regulated Component	Pollutant						
		BAAQMD Regulation 8-Organic Compounds, Rule 18-Valves and Connectors at Petroleum Refinery Complexes, Chemical Plants, Bulk Plants and Bulk Terminals. 3/4/92.	BAAQMD Regulation 8-Organic Compounds, Rule 22-Valves and flanges at Chemical Plants. 6/1/94.	BAAQMD Regulation 8-Organic Compounds, Rule 25-Pump and compressor Seals at Petroleum Refinery, Chemical Plants, Bulk Plants and Bulk Terminals. 6/1/94.	BAAQMD Regulation 8-Organic Compounds, Rule 28-Pressure Relief Valves at Petroleum Refineries and Chemical Plants. 6/15/94.		
Leak Definitions:		Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21".	Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21".	Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21".	Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21".		
Major Gas Leak Definitions:		>100 ppm	> 10,000 ppm	> 500 ppm	> 10,000 ppm		
Minor Gas Leak Definitions:		>100 ppm	> 10,000 ppm	> 500 ppm	> 10,000 ppm		
Major Liquid Leak Definitions:		Dripping of total organic compounds (TOC) at rate > 3 drops/min. and a conc. of TOC > 100 ppm.		Dripping of total organic compounds (TOC) at rate > 3 drops/min. and a conc. of TOC > 500 ppm.			

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Minor Liquid Leak Definitions:			Dripping of total organic compounds (TOC) at rate > 3 drops/min. and a conc. of TOC > 100 ppm.				Dripping of total organic compounds (TOC) at rate > 3 drops/min. and a conc. of TOC > 500 ppm.		
A. Leak Control Requirements	VOC								
A1. <u>Gas leaks allowed (<200 components):</u> - Valves (V) - Pumps seals (P) - Compressors seals (Cp) - Pressure Relief Valves (PRV) - Hatches - Open ended lines (OEL) - Other components			N/A		N/A		N/A		N/A

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A2. <u>Gas leaks allowed (>200 components):</u> - Valves (V) - Pumps seals (P) - Compressors seals (Cp) - Pressure Relief Valves (PRV) - Hatches - Open ended lines (OEL) - Other components		N/A	N/A	N/A	N/A		
B. Components ID	VOC	Yes	Yes	Yes	Yes		
<u>B1. All components physically identified:</u>		- not specified	- not specified	- not specified	- not specified		
<u>B2. Components identified on flow diagrams:</u>		- No	- No	- No	- No		

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C. Operators Inspection Requirements									
<u>C1. Audio-visual insp.</u>		- None		- None		- Daily		- None specified.	
<u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Accessible components:</u>		- Quarterly (valves) - None specified for flanges		- Quarterly (valves) - None specified for flanges		- Quarterly		- Quarterly	
<u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Threaded Connections & Flanges:</u>		- For connectors opened during a turnaround, inspect within 90 days after start-up is completed.		- None specified		- N/A		N/A	

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C2. Hydrocarbon analyzer Monitoring (Method 21) - <u>Inaccessible components:</u>		- Yearly (valves only)	- Yearly (valves only)	- None specified	- None specified		
C2. Hydrocarbon analyzer Monitoring (Method 21) - <u>Unsafe to monitor components:</u>		- Nothing specified	- Nothing specified	- Nothing specified	- Nothing specified		
C2. Hydrocarbon analyzer Monitoring (Method 21) - <u>PRV after a pressure relief:</u>		- N/A	- N/A	- N/A	- Nothing specified		
C2. Hydrocarbon analyzer Monitoring (Method 21) - <u>Monitoring frequency extended for good performance:</u>		- Nothing specified	- Nothing specified	- Nothing specified	- Nothing specified		

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C3. Tag all leaks detected.		Yes - use brightly colored weatherproof tags showing date of leak detection.	Yes - tag leaking valves	Yes - use brightly colored weatherproof tags showing date of leak detection.	Yes - use brightly colored weatherproof tags showing date of leak detection.		
D. Maintenance Requirements							
D1. Non-Essential Components - Repair Gas Leaks Within:		<u>Valves:</u> - minimize within 24 hours. - repair within 7 days, 24 hours if discovered by APCO. <u>Connectors:</u> - minimize within 24 hours. - repair within 7 days.	- repair within 15 days.	- minimize within 24 hours. - repair within 7 days, 24 hours if discovered by APCO.	- repair within 15 days.		

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D1. Non-Essential Components - Repair Gas Leaks > 50,000 ppmv Within:				<u>Leaks > 75,000 ppm:</u> - repair within 15 days.					
D1. Non-Essential Components - Repair Major Liquid Leaks Within:						- minimize within 24 hours and repair within 7 days.			
D1. Non-Essential Components - Repair Minor Liquid Leaks Within:						- minimize within 24 hours and repair within 7 days.			

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D2. Essential Components - <u>Minimized Leaks Within:</u>		<ul style="list-style-type: none"> - Within 24 hours. <u>For Non-Repairable Valves:</u> - repair or replace within 5 years or at next scheduled turnaround, whichever first. - number awaiting repair not to exceed 0.5% of total valves subject to Rule. 	<ul style="list-style-type: none"> - minimize within 15 days. - if still exceeded 10,000 ppm, repair at next scheduled turnaround but not longer than 6 months. 	<ul style="list-style-type: none"> - Within 24 hours. <u>For Non-Repairable Pumps/Compressors:</u> - repair or replace within 5 years or at next scheduled turnaround, whichever first. - number awaiting repair not to exceed 1% of total subject to Rule. Spared pumps and compressors must be repair and can't be included in the % awaiting repair. - Any repaired, replaced or new pump or compressor (except reciprocating or gear pumps) shall not leak in excess of 500 ppm for 4 consecutive quarters. 	<ul style="list-style-type: none"> - minimize within 15 days and repair at next scheduled turnaround. 		

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D2. Chronic Leakers:				<u>Pumps/Compressors found leaking 2 times in a year by APCO:</u> - repair or replace within 5 years or at next scheduled turnaround, whichever first. - number awaiting repair not to exceed 1% of total subject to Rule. Spared pumps and compressors must be repair and can't be included in the % awaiting repair. - Any repaired, replaced or new pump or compressor (except reciprocating or gear pumps) shall not leak in excess of 500 ppm for 4 consecutive quarters.			

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D2. OEL and V Located at End of Lines:											
D2. Hatches:											
D3. Components inspected after repair or replacement with Method 21:		- Within 24 hours		- Within 3 months for valves. Nothing specified for flanges.		- Within 7 days.		- None specified.			
D4. Operator management plan:		N/A		N/A		N/A		N/A			

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